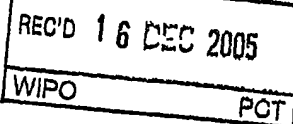


PATENT COOPERATION TREATY

PCT



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/BR 2003/000130	International filing date (day/month/year) 16 September 2003 (16.9.2003)	Priority Date (day/month/year) 10 January 2003 (10.01.2003)
International Patent Classification (IPC) or national classification and IPC IPC ⁷ : G06F 1/12, G06F 1/14, G04G 5/00		
Applicant COPPE/UFRJ - Coordenacao dos Programas de Pós Graduação de Engenharia da Universidade		

1. This international preliminary examination report has been prepared by this International Preliminary Examination Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I. ☒ Basis of the opinion
- II. ☐ Priority
- III. ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV. ☐ Lack of unity of invention
- V. ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI. ☐ Certain documents cited
- VII. ☐ Certain defects in the international application
- VIII. ☐ Certain observations on the international application

Date of submission of the demand 10.08.2004	Date of completion of this report 24 June 2005 (24.06.2005)
Name and mailing address of the IPEA/AT Austrian Patent Office Dresdner Straße 87 A-1200 Vienna Facsimile No. 1/53424/200	Authorized officer KÖGL C. Telephone No. 1/53424/440

Form PCT/IPEA/409 (cover sheet) (July 1998)

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/BR 2003/000130

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I. Basis of the report**1. With regard to the elements of the international application:***☒ the international application as originally filed☐ the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____.

☐ the claims:

pages _____, as originally filed

pages _____, as amended (together with any statement) under Article 19

pages _____, filed with the demand

pages _____, filed with the letter of _____.

☐ the drawings:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____.

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.**4. ☐ The amendments have resulted in the cancellation of:**☐ the description, pages _____.☐ the claims, Nos. _____.☐ the drawings, sheets/fig _____.**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).****

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as „originally filed“ and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

Form PCT/IPEA/409 (Box I) (July 1998))

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/BR 2003/000130

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement			
Novelty (N)	Claims	1-8	YES
	Claims	----	NO
Inventive step (IS)	Claims	4-8	YES
	Claims	1-3	NO
Industrial applicability (IA)	Claims	1-8	YES
	Claims	----	NO

Citations and explanations (Rule 70.7)

The applicant did not response to the objections raised in the Written Opinion dated 28 April 2005. In view of the arguments stated in the Written Opinion resulted in the judgment that the present application is novel but the claims 1-3 do not involve an inventive step. The following documents are mentioned in the International Search Report; the numbering will be adhered to in the Examination Report too:

D1: JP2000 241570 A

D2: Chronos Times ISSU Number 22 – 2002; Chronos Technology Ltd

D3: Messer, James; 'LANs/Ethernet-FAQ'; 1999/07/09

D4: WO 2000/043857 A

D5: JP 63 055 613 A

Document **D1** discloses a distributed global clock for clusters of computers. **D1** is considered to represent the most relevant document. **D1** shows several individual clocks (B1-Bn) which are technical equivalent to the 'multiple time counters' in the present application. **D1** describes the time resetting via mobile phone as well. The only missing feature of Claim 1, which will not be shown in **D1** are the 'computer-nodes', these will be shown in the document **D2**. **D2** belongs to the same technical field of 'distributed global clocks'. **D1** in combination with **D2** clearly discloses the essential features of **Claims 1 to 2** of the present application.

Document **D3** teaches the propagation delay of Ethernet networks. Therefore the characterising technical feature of **Claim 3** will be shown in **D3**. **D1** in combination with **D2** and **D3** clearly discloses the essential features of **Claims 1 to 3** of the present application.

Therefore the **Claims 1 to 3** do not involve an inventive step. In contrast the subject matter of **Claims 4 to 8** is inventive in respect with the cited prior art.

D4 shows the optimization of user data rate in a distributed time-controlled multicluster real-time system. **D5** finally describes a remote operating system for computer. **D4 - D5** show the standard technology.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Box V (page 1)

Summarising, the subject matter of **Claims 1-8** is novel in respect of the prior art. The **Claims 1-3** do not involve an inventive step in respect of the cited documents **D1** in combination with **D2 and D3**. **D4 to D5** show the general state of the art which is not considered to be of a particular relevance.

The industrial applicability is obvious given.

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